

Customer: ILLIANA INSTRUMENT
1831 Govert Drive
Scherverville, IN 46375

PO Number: 3879



Certificate/SO Number: 15-B8D5T-20-1 Revision 0

Manufacturer: Hart Scientific/Fluke
Model Number: 2562
Description: PRT Scanner Module
Serial Number: A88930
ID: ITEM 1429

As-Found: In Tolerance
As-Left: In Tolerance

Calibration Date: Jun 29, 2018
Due Date: Jun 29, 2020

Calibrated To: Manufacturer Specification
Calibration Procedure: 1-AC12472-1

Transcat Calibration Laboratories have been audited and found in compliance with ISO/IEC 17025:2005. Accredited calibrations performed within the Lab's Scope of Accreditation are indicated by the presence of the Accrediting Body's Logo and Certificate Number. Any measurements on an accredited calibration not covered by that Lab's Scope of Accreditation are listed in the notes section of the certificate. SCC, NRC, CLAS or ANAB do not guarantee the accuracy of an individual calibration by accredited laboratories.

Transcat calibrations, as applicable, are performed in compliance with the requirements of the Transcat Quality Manual QAC-P01-000 Revision 1.0, the customer's Purchase Order and/or Quality Agreement requirements, ISO 9001:2008, ANSI/NCSL Z540.1-1994 (R2002). Complete records of work performed are maintained by Transcat and are available for inspection. Laboratory standards used in the performance of this calibration are listed below.

Transcat documents the traceability of measurements to the SI units through the National Institute of Standards and Technology (NIST), or the National Research Council of Canada (NRC), or other national measurement institutes (NMI) that are signatories to the CIPM Mutual Recognition Arrangement, or accepted fundamental and/or natural physical constants, or by the use of specified methods, consensus standards or ratio type measurements. Documentation supporting traceability information is available for review upon written request at a Transcat facility. The measured quantity and the measurement uncertainty are required for further dissemination of traceability.

Uncertainties are reported with a coverage factor $k=2$, providing a level of confidence of approximately 95%. All calibrations have been performed using processes having a TUR of 4:1 or better (3:1 for mass calibrations), unless otherwise noted. The Test Uncertainty Ratio (TUR) is calculated in accordance with NCSL International RP-18. For mass calibrations: Conventional mass referenced to 8.0 g/cm³.

The results in this report relate only to the item calibrated or tested. Recorded calibration data is valid at the time of calibration within the stated uncertainties at the environmental conditions noted. The determination of compliance to the specification is specific to the model/serial no./ID no. referenced above based on the tolerances shown; these tolerances are either the original equipment manufacturers (OEM's) warranted specifications or the client's requested specifications. This certificate may not be reproduced except in full, without the written approval of Transcat. Additional information, if applicable may be included on separate report(s).

Notes:

As-Found/As-Left
Module Calibration Constants:
0 ADJ: 0.00090
100 ADJ: 0.03060
400 ADJ: 0.00001

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As Found/As Left Data

| Description | Setpoints | Accuracy | Low Limit | High Limit | As Found / As Left | O O T | Cal Process Uncertainty (k=2; ±) | Measurement Uncertainty (k=2; ±) | Units | TUR |
|----------------------------|--------------|----------------|-----------|------------|--------------------|-------------|--|--|-------|----------|
| Resistance Accuracy | | | | | | | | | | |
| CH #1 Resistance Accuracy | 0.00000Ohm | ±(0.001 Ohm) | -0.00100 | 0.00100 | 0.00003 Ohm | | 5.6e-005 | 1.3e-004 | Ohm | 17.9 : 1 |
| | 20.00000Ohm | ±(0.001 Ohm) | 19.99900 | 20.00100 | 20.00068 Ohm | | 5.6e-005 | 1.3e-004 | Ohm | 17.9 : 1 |
| | 100.00000Ohm | ±(40 PPM Rdg) | 99.9960 | 100.0040 | 100.0011 Ohm | | 2.1e-004 | 2.4e-004 | Ohm | 19.0 : 1 |
| | 200.00000Ohm | ±(40 PPM Rdg) | 199.9920 | 200.0080 | 200.0052 Ohm | | 4.2e-004 | 4.4e-004 | Ohm | 19.0 : 1 |
| | 400.00000Ohm | ±(40 PPM Rdg) | 399.9840 | 400.0160 | 400.0081 Ohm | | 8.4e-004 | 8.5e-004 | Ohm | 19.0 : 1 |
| CH #2 | 100.00000Ohm | ±(40 PPM Rdg) | 99.9960 | 100.0040 | 100.0010 Ohm | | 2.1e-004 | 2.4e-004 | Ohm | 19.0 : 1 |
| CH #3 | 100.00000Ohm | ±(40 PPM Rdg) | 99.9960 | 100.0040 | 100.0012 Ohm | | 2.1e-004 | 2.4e-004 | Ohm | 19.0 : 1 |
| CH #4 | 100.00000Ohm | ±(40 PPM Rdg) | 99.9960 | 100.0040 | 100.0010 Ohm | | 2.1e-004 | 2.4e-004 | Ohm | 19.0 : 1 |
| CH #5 | 100.00000Ohm | ±(40 PPM Rdg) | 99.9960 | 100.0040 | 100.0021 Ohm | | 2.1e-004 | 2.4e-004 | Ohm | 19.0 : 1 |
| CH #6 | 100.00000Ohm | ±(40 PPM Rdg) | 99.9960 | 100.0040 | 100.0022 Ohm | | 2.1e-004 | 2.4e-004 | Ohm | 19.0 : 1 |
| CH #7 | 100.00000Ohm | ±(40 PPM Rdg) | 99.9960 | 100.0040 | 100.0021 Ohm | | 2.1e-004 | 2.4e-004 | Ohm | 19.0 : 1 |
| CH #8 | 100.00000Ohm | ±(40 PPM Rdg) | 99.9960 | 100.0040 | 100.0021 Ohm | | 2.1e-004 | 2.4e-004 | Ohm | 19.0 : 1 |

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Traceable Standards

| Asset | Manufacturer | Model Number | Description | Cal Date | Due Date | Traceability Number | Use |
|-------|-----------------------|--------------|---------------------|-----------|-----------|---------------------|-------|
| 31175 | Hart Scientific/Fluke | 1590 | Superthermometer | 2-May-17 | 30-Jun-18 | B7502029 | AF/AL |
| M1360 | Fluke Corporation | 742A-100 | Resistance Standard | 22-Feb-18 | 27-Feb-19 | CAL186373 | AF/AL |


The use of the standard is defined as: AF - used for as-found readings, AL - used for as-left readings.


Environmental Data

| Temperature | Relative Humidity | Temp / RH Asset |
|------------------|-------------------|-----------------|
| 71.48°F /21.93°C | 50.60% | M1321 |

Calibrated At:
2056 S. Alex Road
West Carrollton, OH 45449

Facility Responsible:
2056 S. Alex Road
West Carrollton, OH 45449
800-828-1470

Calibrated By:
 **Electronically Signed By:**
Martha Lis

Reviewed By:
 **Electronically Signed By:**
Shane Smith for

Unit Barcode: 
901B0077895

Martha Lis Jun 29, 2018
Calibration Technician 09:35:23 -04:00

Derek Atkinson Jun 29, 2018
Lab Manager 11:50:06 -04:00

Date Received: June 21, 2018
Service Level : R9